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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/542,738 | 05/22/2006 | George Fyfe | MAD-6 | 8872 |
| 2387 | 7590 | 07/24/2007 | | |
| OLSON & HIERL, LTD. 20 NORTH WACKER DRIVE 36TH FLOOR CHICAGO, IL 60606 | | | EXAMINER BEACH, THOMAS A | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,738

Applicant(s)

FYFE, GEORGE

Examiner

Thomas A. Beach

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. Claims 1 and 4-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Justman 4,280,742. Justman shows an attachment device for a ground drilling or cutting tool that enables cutting elements 31 to be movably secured to said tool, said cutting elements having an arm that has a longitudinal axis, a first surface defining a dowel hole 83, and an engagement surface that extends substantially parallel to the longitudinal axis, said attachment means including: a second surface on said tool upon which said first surface locates, defining a dowel hole aligned with the dowel hole in the first surface when said first and said second surfaces locate together, a dowel that locates in said first and said second dowel holes when the dowel holes are aligned with one another, an engagement surface on said tool that extends substantially parallel to a longitudinal axis of said tool, and engages the engagement surface of said cutting element to resist side loads applied to said cutting element, and fastening means a plurality of threaded fasteners 25 having a preselected diameter, for securing said cutting element to said tool, threaded apertures defined in said second surface of said tool that are threadingly engaged by said threaded fasteners, said arm including walls that define through holes extending through said arm, to receive and locate said thread fasteners so as to threadably engage with said tool, and said through holes defined by said walls having a diameter that is larger than the diameter of said threaded fasteners,

such that there is a clearance between the walls and said threaded fasteners that minimizes shear load applied by said arm to said threaded fasteners (figs 1-4).

As concerns claim 5, Justman shows engagement surfaces define an interengaging recess and projection 37.

As concerns claim 6, Justman shows recess comprises a longitudinal channel 37.

As concerns claim 7, Justman shows said channel has a base that is parallel to one of said first and said second surfaces, and side walls that are substantially normal to said base (fig 2).

As concerns claim 8, Justman shows the projection has a shape complementary to the internal shape of said channel (fig 2).

As concerns claim 9, Justman shows channel is on said second surface 26.

As concerns claim 10, Justman shows the crating element also comprises arm includes a mounting box containing said first surface and said walls defining said through holes (fig 2).

As concerns claim 11, Justman shows fastening means comprises a plurality of threaded fasteners 67.

As concerns claim 12, Justman shows first surface defines apertures through which said bolts locate and threaded apertures defined in said second surface that are engaged by said bolts (fig 2).

Claim Rejections - 35 USC § 103

2. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Justman 4,280,742 in view of Jones 2,189,040. Justman does not shows the cutting element comprises a conical roller cutter, but Jones shows a similar attachment device for a ground drilling or cutting tool that enables cutting elements 3 to be movably secured to said tool, said cutting elements having an arm that has a longitudinal axis, the cutting element comprises a conical roller cutter having an area and said first surface comprises a surface on the that is attached to said arm (fig 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Justman, as taught by Jones, to include either conical roller cutters to enhance the versatility of the cutting tool, thereby improving adaptability to varying environments.

Justman 4,280,742 shows the dowel is normal to both said first and second surfaces (fig 2).

Justman 4,280,742 there are at least two dowels 83.

Response to Arguments

3. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Beach whose telephone number is 571.272.6988. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571.272.6998. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Art Unit: 3671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas A. Beach

July 22, 2007

THOMAS A. BEACH
Primary Examiner
Group 3600